

TELEDYNE WAH CHANG HUNTSVILLE -- TUNGSTEN WELDING ELECTRODES -- 3439-00-872-1411
===== Product Identification =====

Product ID:TUNGSTEN WELDING ELECTRODES
MSDS Date:03/01/1991
FSC:3439
NIIN:00-872-1411
MSDS Number: BKJQX
=== Responsible Party ===
Company Name:TELEDYNE WAH CHANG HUNTSVILLE
Address:7300 HIGHWAY 20 WEST
City:HUNTSVILLE
State:AL
ZIP:35806-2052
Country:US
Info Phone Num:205-837-1311
Em
ergency Phone Num:205-837-0285
CAGE:3G120

=== Contractor Identification ===
Company Name:INWELD MFG CORP
Address:3962 PORTLAND ST
Box:40
City:COPLAY
State:PA
ZIP:18037-0040
Country:US
Phone:610-261-1900
CAGE:66376
Company Name:TELEDYNE WAH CHANG
Address:7300 HIGHWAY 20 WEST
Box:City:HUNTSVILLE
State:AL
ZIP:35806-2052
Country:US
Phone:205-837-0285
CAGE:3G120

===== Composition/Information on Ingredients =====

Ingred Name:TUNGSTEN
CAS:7440-33-7
RTECS #:YO7175000
Other REC Limits

:NONE SPECIFIED
OSHA PEL:5 MG/M3/ 10 STEL
ACGIH TLV:5 MG/M3/10 STEL;9192

Ingred Name:ZIRCONIUM OXIDE
CAS:1314-23-4
RTECS #:ZH8800000
Other REC Limits:NONE SPECIFIED

Ingred Name:THORIUM OXIDE
CAS:1314-20-1
Other REC Limits:NONE SPECIFIED

===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:INHALATION OF TUNGSTEN
DUSTS,FUMES/MIST

S MAY CAUSE TRANSIENT/PERMANENT LUNG DAMAGE &
IRRITATES SKIN.THORIUM IS TOXIC RADIOLOGICALLY,BUT HAS LOW CHEMICAL
TOXICITY.THE LIGHT FROM THE ARC CAN CAUSE EYE/S KIN DAMAGE & CAN
DECOMPOSE CHLORINATED HYDROCARBON TO TOXIC GASES SUCH AS
PHOSGENE.CHRONIC-NOT GIVEN

Explanation of Carcinogenicity:THORIUM OXIDE

Effects of Overexposure:ELECTRIC ARC WELDING MAY CREATE FUMES AND GASES
THAT CAN BE DANGEROUS TO YOUR HEALTH.ARC RAYS CAN INJURE EYES AND
BURN SKIN. ELECTRIC SHOCK CAN
KILL.

Medical Cond Aggravated by Exposure:CHRONIC RESPIRATORY DISEASES AND
ASTHMA MAY BE AGGRAVATED BY EXPOSURE TO DUST, FUMES, OR MISTS.

===== First Aid Measures =====

First Aid:CALL FOR MEDICAL AID.INHALATION:REMOVE TO FRESH AIR.GIVE
CPR/OXYGEN IF NEEDED.EYE:FLUSH WITH WATER FOR 15 MINUTES.SKIN:WASH
WITH SOAP & WATER.CLEAN WOUND CONTAMINATED WITH DUST/FUME/MIST
IMMEDIATELY.I NGESTION:SEEK MEDICAL ATTENTION. IN CASE OF
ELECTRICAL SHOCK
,TURN OFF POWER & FOLLOW RECOMMENDED TREATMENT.

===== Fire Fighting Measures =====

Flash Point:NON FLAMMABLE
Extinguishing Media:MEDIA APPROPRIATE FOR SURROUNDING FIRE. FOR
TUNGSTEN DUST FIRES USE CLASS D EXTINGUISHING MEDIA, DRY POWDERS.
Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA &
FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER
SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.
Unusual Fire/Explosion Haza

rd:WELDING ARC AND SPARKS CAN IGNITE
COMBUSTIBLES.TUNGSTEN DUST (FROM GRINDING) MAY PRESENT A MODERATE
FIRE HAZARD IF ALLOWED TO ACCUMULATE.TUNGSTEN TRIOXIDE.

===== Accidental Release Measures =====

Neutralizing Agent:NOT APPLICABLE.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A DRY PLACE.
Other Precautions:READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTIONS
AND THE PRECAUTIONARY LABEL O
N THE PRODUCT.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NONE REQUIRED FOR ELECTRODES AS
RECEIVED.REQUIRED DURING GRINDING(DRESSING ELECTRODE)OR WELDING,IF
THE LIMITS ARE EXCEEDED.FOR THORIUM ELECTRODES USE A DUST MASK(FOR
RADIO ACTIVE PARTICLES).USE NIOSH APPROVED RESPIRATOR(29 CFR
1910.134).

Ventilation:LOCAL EXHAUST AT THE ARC.

Protective Gloves:WELDER'S GLOVES

Eye Protection:HELMET OR FACE SHIELD WITH FILTER LENS

Other Prote

ctive Equipment:WEAR HAND,HEAD & BODY PROTECTION WHICH HELP
TO PREVENT INJURY FROM RADIATION,SPARKS & ELECTRICAL SHOCK(FLAME
RETARDANT).

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND
RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR
FOOTWEAR.

Supplemental Safety and Health

INSULATE FROM WORK AND GROUND.TRAIN THE WELDER NOT TO PERMIT
ELECTRICALLY LIVE PARTS TO CONTACT SKIN OR CLOTHING OR GLOVES IF
THEY ARE WET.

===== Physical
/Chemical Properties =====

HCC:N1

Boiling Pt:B.P. Text:10652F

Melt/Freeze Pt:M.P/F.P Text:6152F,3400C

Spec Gravity:19

Solubility in Water:INSOLUBLE

Appearance and Odor:TIN-WHITE METAL NO ODOR

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES
OXIDIZERS ESPECIALLY AT ELEVATED TEMPERATURES,STRONG
ACIDS,BF3,F,IF5,AND MIXING LEAD OXIDE WITH TUNGSTEN DUST.

Stability Condition to Avoid:THORIUM DECAYS BY RADIOACTIVITY.

Haz

ardous Decomposition Products:NONE

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF THE MATERIAL IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. TUNGSTEN SCRAP AND DUST HAVE VALUE AND CAN BE RECLAIMED.

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever,
expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.